

## APPARATUS FOR HOLDING GARMENT HANGERS

### RELATED APPLICATIONS

[0001] This application is based on and claims benefit of U.S. Application No. 60/270,994, filed February 22, 2001, entitled APPARATUS FOR HOLDING GARMENT HANGERS, to which a claim of priority is hereby made.

### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

[0002] The present invention relates to an apparatus for holding garment hangers and, in particular, to such an apparatus that permits additional hangers to be suspended from a hanger rod or rail on which the apparatus is used.

#### 2. Description of the Prior Art

[0003] Devices for holding garment hangers are known for solving a variety of problems associated with storing, transporting and displaying garments, for example. U.S. Patent No. 5,584,455 to Artemi shows such a device. In Fig. 1A of that patent the patentee describes a device with an adjustable loop in the form of a strap. However, Artemi relies upon a riveted design to provide adjustability and does not disclose using the hook member to provide adjustment.

[0004] In addition, conventional hook members suffer from the drawback that if the hook member is jostled, the entire device is susceptible to being thrown off a rail or rod from which it is hung. It is often the case that garment hanger holder devices are used with moveable racks on rollers for transport. If the moveable rack is jostled in transit for example, the garment hanger holder device can be thrown off the rack accidentally, resulting in the suspended garments being damaged or soiled.

Similarly, garment hanger holder devices can be thrown off a rail or rod in a truck used for transport, with similar results.

#### SUMMARY OF THE INVENTION

**[0005]** It is an object of the present invention to provide a device that allows additional hangers to be held by a hanger rail or rod. According to the present invention, a hook shaped member is provided which can be placed upon a hanger rod in conventional fashion. The hook shaped member has a hook opening shaped and sized to provide resistance when the member is placed on and removed from a rod or rail. Curves on opposing surfaces of the hook opening increase the resistance or interference felt upon removal of the hook shaped member from a rack, thereby helping to prevent accidental removal. A curved surface on the hook opening permits the majority of attachment or removal resistance to be felt near a single point.

**[0006]** The hook shaped member includes a slot through which a strap of material, for example, a strap of flexible material, can be attached. The strap has a loop for hanging garment hangers. Preferably, a number of slots are provided in the hook shaped member to allow for adjustable attachment of the loop to the hook shaped member in serpentine fashion. In this way, the distance of the loop with respect to the hook part of the hook shaped member can be adjusted. Conventional garment hangers are then inserted through the loop portion to support garments. In particular, the invention allows the conventional garment hangers to be supported by the loop at a position at a distance below the rod or rail holding the other hangers supported directly by the rod or rail. This allows a larger number of garment hangers to be hung from the rail or rod than would otherwise be possible, particularly in the case where the garments hung directly from the rail have an increased thickness at approximately the shoulder of the garment due to the bulk of the conventional hangers as well as the material of the garments themselves on the hangers.

## BRIEF DESCRIPTION OF THE DRAWINGS

[0007] The invention is now described with reference to the drawing figures in which:

[0008] Fig. 1 is a plan view of a hook shaped member according to the present invention;

[0009] Fig. 2 is a cross sectional view of the hook shaped member of Fig. 1 including a loop assembly;

[0010] Fig. 3 is a plan view of the hook shaped member and loop assembly of Fig. 2 shown mounted on a rod and holding conventional coat hangers;

[0011] Fig. 4 is a plan view of a hook shaped member with a non-adjustable loop according to an embodiment of the present invention;

[0012] Fig. 5 is a cross sectional side view of the device shown in Fig. 4;

[0013] Fig. 6 is a plan view of a hook shaped member with an adjustable loop according to a further embodiment of the present invention; and

[0014] Fig. 7 is a plan view of a hook shaped member according to another embodiment of the present invention.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0015] Referring now to Fig. 1, a hook shaped member 10 according to the present invention has two slots 12. Slots 12 can receive a strap with a loop therein. Hook shaped member 10 can be formed of plastic, metal or wood, for example.

[0016] Referring now to Fig. 2, a strap 14 is supplied with a loop or loops 16, 18 that receive the hooks of the conventional garment hangers according to the present invention. Strap 14 is threaded through slots 12 in a serpentine fashion. The serpentine threading of strap 14 through slots 12 can provide a certain amount of resistance to movement of strap 14 through slots 12 when strap 14 is carrying the weight of garments on garment hangers hooked into loops 16 and 18. The weight of

garments hung from loops 16 and 18 is transferred to strap 14 and creates an automatic frictional restraint in conjunction with hook shaped member 10 and slots 12. In this configuration, strap 14 can be adjusted by relieving the weight applied to one or more loops 16, 18 and sliding strap 14 through slots 12 as desired. Referring now to Fig. 3, the garment hanging device of the present invention is shown attached to and hanging from a rod 11. Conventional coat hangers 20 have hooks that are placed in loops 16 and 18 to suspend the conventional coat hangers 20.

**[0017]** Referring now to Figs. 4 and 5, a hook shaped member 10 is provided with a single slot 12 and a strap 14. Strap 14 is threaded through slot 12 and suspended from hook shaped member 10. Strap 14 has a loop 16, defined by a stitched or riveted portion of strap 14. In this configuration, the hooks of conventional garment hangers can be placed in loop 16 to suspend the garments from the device. In addition, the device shown generally with reference designator 15 can be hooked into a loop 16 of another device 15 to thereby suspend one device from another. As with device 15 shown in Figs. 1-3, multiple garment hangers can be suspended from loop 16 of device 15 shown in Figs. 4 and 5. Furthermore, multiple devices 15 can be suspended from one or more devices 15 to permit an increased flexibility for applications involving device 15 and suspension of garment hangers. Although not shown, it should be apparent that it is possible to provide a plurality of loops disposed in vertical sequence downwardly suspending from hook shaped member 10. Such a plurality of loops provides a number of locations where garment hangers or other devices 15 can be hung.

**[0018]** Referring now to Fig. 6, strap 14 is shown attached with a slide device 17. Other adjustable devices can be used in place of slide device 17, such as, for example, a buckle with adjustable end straps or an adjustable strap clasp mechanism. It should also be apparent that strap 14 can be provided with one or more non-adjustable loops in accordance with the devices shown in Figs. 1-5, in addition to the adjustable loop 16 shown in Fig. 6.

[0019] Referring now to Fig. 7a and 7b, a hook shaped member 10 with a hook opening 27 having a specific size and shape is shown. A hook resistance portion 22 on a lower body portion of hook shaped member 10 receives a portion of a rod 11 upon which device 15 will be hung. Another hook resistance portion 26 is shown located on an upper hook prong area of hook shaped member 10. Hook resistance portion 26 has an elongated section that is substantially opposed to hook resistance portion 22. Device 15 is hung upon rod 11, shown in phantom, by receiving rod 11 through hook opening 27 defined by hook resistance portions 22, 26.

[0020] Both hook resistance portions 22 and 26 have a convex surface profile, as illustrated in Fig. 7b. The convex profile shape of hook resistance portions 22, 26 permits hook shaped member 10 to be hung on rod 11 in a variety of aspects. For example, if hook shaped member 10 is tilted slightly with respect to rod 11, the convex surfaces of hook resistance portions 22, 26 still provide resistance to hanging device 15 on rod 11.

[0021] Hook shaped member 10 shown in Figs. 7a and 7b operates by providing resistance when device 15 is hung upon rod 11. A dimension of hook opening 27 defined by hook resistance portions 22, 26 is carefully established so that hook resistance portions 22, 26 are forced into contact with surfaces of rod 11 when hook shaped member 10 receives rod 11. Similarly, when device 15 is removed from rod 11, hook resistance portions 22, 26 are forced into contact with surfaces of rod 11 thereby increasing a resistance to the removal of hook shaped member 10 from rod 11. Hook resistance portion 22 is slightly curved to permit resistance to build, reach a maximum and recede as rod 11 proceeds through a minimal distance describing hook opening 27. As with the case when rod 11 is received by hook shaped member 10, convexly curved surfaces on hook resistance portions 22, 26 permit device 15 to be removed at a skewed angle with respect to rod 11, while maintaining a measure of resistance to removal.

[0022] Hook shaped member 10 may also be provided with an enlarged hook opening 27 that does not resist or substantially interfere with attachment or removal of hook shaped member 10 to/from rod 11. In this instance, convex curves on hook resistance portions 22, 26, as shown in Fig. 7, still assist in interfering with the removal of hook shaped member 10. If hook shaped member 10 is jostled and in danger of being accidentally dislodged from rod 11, there is typically an angle of skew observed between hook shaped member 10 and rod 11. When hook shaped member 10 and rod 11 are skewed with respect to each other, convex surfaces on hook resistance portions 22, 26 continue to prevent hook shaped member 10 from being dislodged from rod 11.

[0023] Hook opening 27 is angled with respect to a vertical axis of hook shaped member 10, as illustrated in Fig. 7a. This arrangement permits hook shaped member 10 to be easily removed from rod 11, even when resistance is provided at hook opening 27. Hook shaped member 10 is tilted to substantially align hook opening 27 with a horizontal plane of rod 11, permitting hook shaped member 10 to be removed in a horizontal direction. Alternately, the tilted hook shaped member 10 is rotated to swing hook opening 27 across rod 11, to remove hook shaped member 10 without excessive lifting force. When device 15 is heavily loaded, it can be difficult to remove hook shaped member 10 from rod 11 by lifting, since any resistance at hook opening 27 contributes to the lifting force needed to remove device 15 from rod 11. By rotating hook shaped member 10 when hook opening 27 is aligned with a horizontal plane of rod 11, device 15 is easily removed without excessive force.

[0024] Although the present invention has been described in relation to particular embodiments thereof, many other variations and modifications and other uses will become apparent to those skilled in the art. It is preferred, therefore, that the present invention be limited not by the specific disclosure herein, but only by the appended claims.